

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for testing wire bonds in an integrated circuit package, comprising:

receiving a die comprising an integrated circuit formed on a semiconductor substrate that is bonded to a packaging substrate, said integrated circuit comprising a circuit contact pad and said packaging substrate comprising a lead contact pad, wherein a non-stick detection (NSD) contact pad contacts said semiconductor substrate and extends through said packaging substrate, said NSD contact pad coupled via a trace line to a bus line that is coupled to ground;

forming a wire connection between said a circuit contact pad in said integrated circuit and said a lead contact pad in a package substrate bonded to said semiconductor substrate; and

testing said wire connection for ~~non-stick failure~~ to stick at said circuit contact pad and at said lead contact pad by checking for electrical continuity along a path comprising said circuit contact pad and said NSD contact pad ~~a non-stick detection (NSD) contact pad coupled to said semiconductor substrate,~~ wherein said semiconductor substrate itself provides electrical continuity between said circuit contact pad and said NSD contact pad for said testing.

2. (Currently Amended) A method as described in Claim 1, wherein said ~~said~~ integrated circuit die is bonded to said packaging ~~package~~ substrate using electrically conductive epoxy.

3. (Currently Amended) A method as described in Claim 1, wherein said ~~said~~ integrated circuit die is bonded to said packaging ~~package~~ substrate using non-electrically conductive epoxy.

4. (Currently Amended) A method as described in Claim 1, wherein said lead contact pad is electrically isolated from other lead contact pads in said packaging ~~package~~ substrate.

Claims 5-7 (Canceled).

8. (Currently Amended) A method as described in Claim 1, wherein said method is performed ~~recursively~~ for a plurality of wire connections.

Claims 9-37. (Canceled).

38. (Currently Amended) A method for testing wire bonds in an integrated circuit package, comprising:

receiving a die comprising an integrated circuit formed on a semiconductor substrate, wherein said integrated circuit die is bonded to a packaging substrate;

connecting one end of a wire to a circuit contact pad of ~~in~~ said integrated circuit; and

testing for ~~non-stick~~ failure of said wire to stick to said circuit contact pad by checking for electrical continuity along a path comprising said circuit contact pad and a non-stick detection (NSD) contact pad coupled to

said semiconductor substrate, wherein said NSD contact pad extends through said packaging substrate and wherein said semiconductor substrate provides electrical continuity between said circuit contact pad and said NSD contact pad for said testing.

39. (Canceled).

40. (Currently Amended) A method as described in Claim ~~38~~ 39, wherein said NSD contact pad ~~extends through said package substrate and~~ is coupled via a trace line to a bus line that is coupled to a grounded mold gate, wherein said path for checking electrical continuity further comprises said trace line, said bus line and said mold gate.

41. (Currently Amended) The method of Claim ~~40~~ 38, wherein said wire is fed from a wire spool and wherein said path for checking electrical continuity further comprises said wire and said wire spool.

42. (Currently Amended) A method for testing wire bonds in an integrated circuit package, comprising:

connecting the first end of a length of a wire fed from a wire spool to a circuit contact pad in an integrated circuit formed on a semiconductor substrate that is bonded to a packaging substrate; and

testing said connecting of said first end of said wire to said circuit contact pad for ~~non-stick~~ failure to stick by checking for electrical continuity on a path comprising, in order, said wire spool, said length of wire, said circuit contact pad, said semiconductor substrate, and a non-stick detection

(NSD) contact pad coupled to said semiconductor substrate, wherein said NSD contact pad extends through said packaging substrate, wherein said semiconductor substrate provides electrical continuity between said circuit contact pad and said NSD contact pad for said testing, wherein ~~non-stick~~ failure to stick at said first end is indicated if said electrical continuity does not exist.

43. (Canceled).

44. (Currently Amended) A method as described in Claim ~~42~~ 43 wherein said NSD contact pad ~~extends through said package substrate and~~ is coupled via a trace line to a bus line that is coupled to a grounded mold gate, wherein said path for checking electrical continuity further comprises said trace line, said bus line and said mold gate.

45. (Currently Amended) A method as described in Claim ~~42~~ 43, further comprising:

connecting the second end of said length of wire to a lead contact pad in said packaging ~~package~~ substrate, wherein successful connection of said second end to said lead contact pad causes said length of wire to separate from said wire spool; and

testing connection of said second end to said lead contact pad for ~~non-stick~~ failure to stick by checking for electrical continuity along said path, wherein ~~non-stick~~ failure to stick at said second end is indicated if electrical continuity exists.